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TECHNICAL DATA SHEET

UPS 801 LW Epoxy Concrete Mortar

Three Component Solvent Free Lightweight Epoxy Mortar

UPS 801 LW is a high performance epoxy mortar designed as a lightweight repair compound for use on damaged concrete and mineral surfaces in verticle and overhead areas.

UPS 801 LW is based on a blend of solvent free epoxy resins and polyamino amine adducts reinforced with a special blend of silica quartz minerals and light weight fillers, which have been specially selected to provide optimum application, build, thickness and performance properties together with a high level of adhesion and physical properties.

UPS 801 LW masonry repair system is easy and safe to use with no shrinkage or volume change which eliminates the need for shuttering or multi-coat application, ideal for areas where extensive damage or spalling has occurred and where complete rebuilding is required.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Surfaces which are being repaired with **UPS 801 LW**

must be clean, dry and free from contamination. All loose, spalled and eroded concrete or masonry should be removed. Any areas of exposed rebars should be primed with **UPS 904 GP Primer** All existing coatings must be removed from the surface before any repair is carried out. Failure to do this will mean the bond is only as good as the existing coating. Thorough cleaning and roughening of any surface to which **UPS 801 LW .** is being applied is absolutely essential for a successful repair.

Abrasion of surfaces will cause dusting and all loose dust should be vacuumed clear before the application commences.

PRIMING

To obtain maximum penetration and adhesion, the repair area should always be primed with **UPS 801 LW Primer**. **UPS 801 LW Primer** consists of a base component and an activator component. The contents of the activator component should be added to the base unit. Mix thoroughly to produce a uniform material. If only small quantities are required then the **UPS 801 LW Primer** can be mixed in the ratio 2 parts base to 1 part activator.

The mixed primer should be applied immediately using a stiff bristle brush, working the material into the prepared surface to obtain maximum penetration. **UPS 801 LW Primer** will generally apply at coverage rate of 0.37m^2 (4ft^2) per 100 gms of primer.

UPS 801 LW Primer must be used as a tack coat and should not be allowed to dry - any areas of primer which have been allowed to dry should be reprimed for optimum results.

MIXING

Thortex UPS 801 LW is a three component material comprising a Base and Activator component plus Aggregate. The Aggregate component should be removed from the outer container. The Base and Activator components should be emptied into this container and mixed thoroughly to produce a uniform material. The **UPS 801 LW** Aggregate should immediately be added to the Base and Activator mix until the desired consistency is achieved.

The complete material should be mixed thoroughly for 2-3 minutes to produce a uniform material. Prolonged hand mixing or mixing by mechanical mixer will produce a wetter mix.

If only small quantities are required then the **UPS 801 LW**

Base and Activator can be mixed in the ratio of 2 parts Base to 1 part Activator by weight.

NOTE: On certain applications where a wetter mix is required a small quantity of the Aggregate can be omitted from the mix.

APPLICATION

The mixed **UPS 801 LW** should be applied to the freshly primed area by float or trowel, whilst the primer is still tacky. Any areas of primer which have been allowed to dry must be re-primed. The material should be pressed firmly and evenly onto the surface and then smoothed over with a steel trowel or float.

NOTE: The mixed material can be pressed into place using a gloved hand as an alternative to the use of a trowel or float.

On vertical surfaces, the maximum thickness which can be achieved without sagging is (100 mm) 4 inches.

When applied at 6 mm ($^1/_4$ inch) **UPS 801 LW.** will provide a coverage rate of 0.9 m^2 per 5 kg unit.

UPS 801 LW can be readily applied to overhead surfaces without the use of shuttering.

NOTE: The minimum temperature of application is 5°C (50°F). On certain repairs there may be adjacent areas where **UPS 801 LW** is not required to bond. By applying **UPS Release Agent** to these surfaces, before the **UPS 801 LW** is applied, then after curing, a simple release can be achieved.

All equipment must be cleaned IMMEDIATELY after use with **UPS Universal Cleaner.**

Volume Capacity

1080 cc (66 cu ins) per kilo.

Detailed working Recommendations are available from the Technical Centre on request.

PHYSICAL CONSTANTS

Mixing Ratio Mix as supplied.

Appearance

Primer Base	Clear Pale Straw Liquid
Primer Activator	Clear Amber Liquid
Base	Clear Pale Straw Liquid
Activator	Clear Amber Liquid
Aggregate	Light Brown Granular Powder

Drying & Cure Times at 20°C/68°F

UPS 801 LW Primer

Usable Life	30 minutes
Maximum Overcoating	3 1/2 hours

UPS 801 LW

Usable Life	70 minutes
Foot Traffic	8 hours
Full Hardness	24 hours
Maximum Overcoating	24 hours
Full Cure	7 days

Volume Solids 100%

V.O.C. Nil

Shelf Life Use within 5 years of purchase. Store in original sealed containers at temperatures between 5°C(40°) and 30°C(86°F).

PHYSICAL PROPERTIES

Direct Pull Adhesion ASTM D4541	35 kg/cm^2 (500 psi) (On Concrete) (Concrete Failure)
Compressive Strength ASTM D695	420 kg/cm^2 (6000 psi)
Tensile Strength ASTM D683	160 kg/cm^2 (2300 psi)
Flexural Strength ASTM D790	280 kg/cm^2 (4000 psi)
Heat Distortion Temperature ASTM 648	40°C (104°F)

HEALTH AND SAFETY

As long as normal good practice is observed **UPS LW 405** can be safely used.

Protective gloves should be worn.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

PACKAGING

Supplied in 5 kg packs.

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